

COMBINED DISTRICT COUNCILS,

GUISBOROUGH UNION.

---

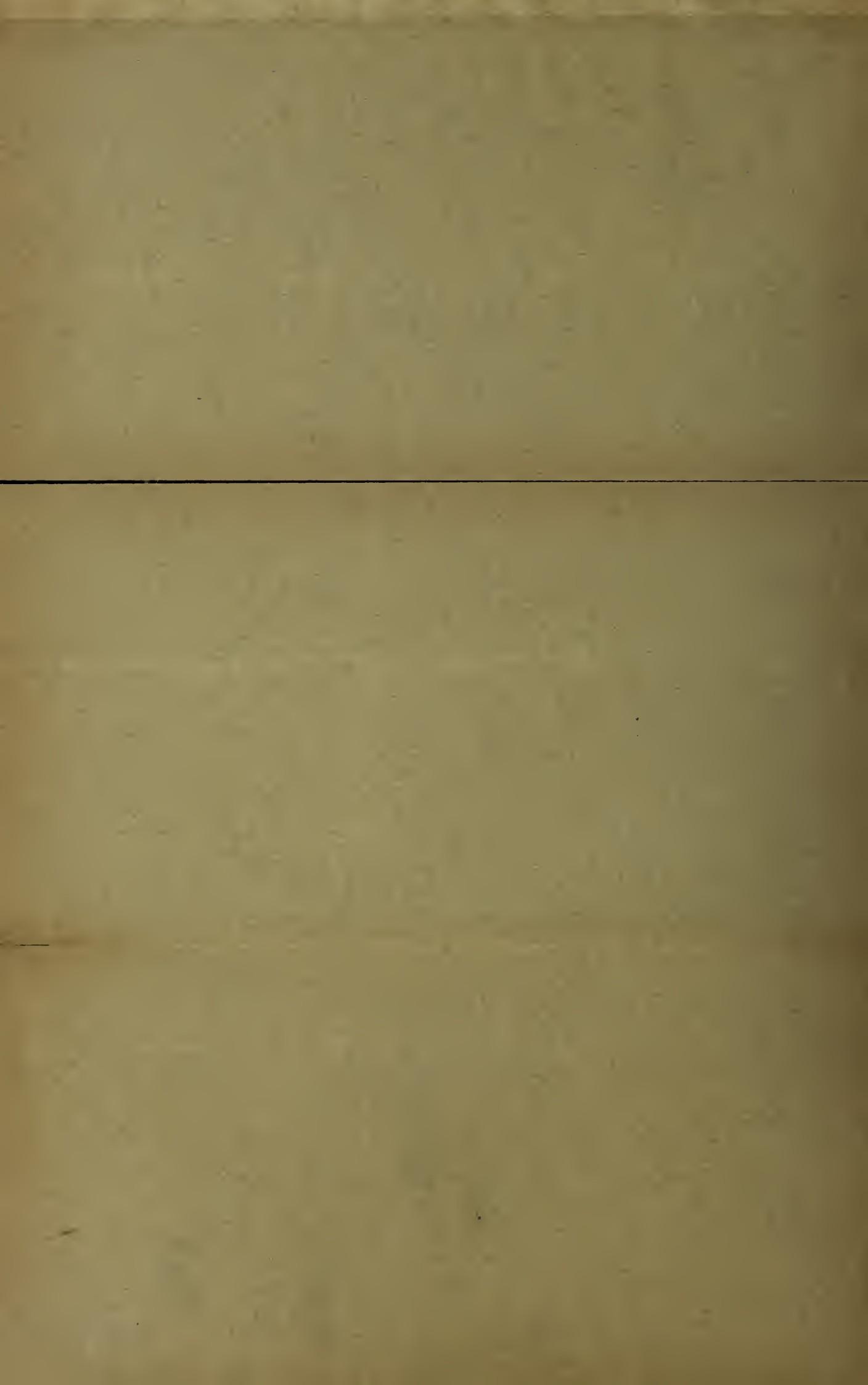
R E P O R T

FOR THE YEAR 1896

OF THE

MEDICAL OFFICER OF HEALTH,

W. W. STAINTHORPE, M.D., C.M., D.P.H.



To THE CHAIRMAN AND MEMBERS  
OF THE  
→ꝝ GUISBOROUGH ꝝ←  
RURAL DISTRICT COUNCIL.



# TO THE CHAIRMEN AND MEMBERS

OF

THE	GUISBOROUGH RURAL DISTRICT COUNCIL		
„	GUISBOROUGH URBAN	„	„
„	KIRKLEATHAM	„	„
„	LOFTUS	„	„
„	REDCAR	„	„
„	SALTBURN-BY-THE-SEA	„	„
„	SKELTON & BROTTON	„	„

---

GENTLEMEN,

I beg to submit for your consideration my Report, as Medical Officer of Health for the above Districts, for the year ending December 31st, 1896.

## Infectious Diseases.

The number of cases of infectious diseases notified during the year was 303 compared with 612 in the previous year. Table A shows the number of each reported in the several districts.

## Scarlet Fever.

A decrease in the number of cases of this disease is to be noted, 213 being reported compared with 490 in the previous year. Of these, 62 occurred in the Guisbro' Rural District, 8 in the Guisbro' Urban, 48 in the Kirkleatham, 44 in the Loftus, and 32 in the Skelton and Brotton. Saltburn was free from the disease. The greatest decrease took place in the Skelton and Brotton District, 31 compared with 352 in 1895. In the Guisbro' Urban District only 8 cases occurred as against 28 in the previous year. In the remaining districts there was an increase to a greater or less extent. This decrease in two of the districts and increase in the others is easily accounted for. During the year 1892 the total number of cases notified were 78 : in the following year they rose to 419, followed by 274 in 1894, and 490 in 1895. Of the total number of cases (1183) during the three years, 775 occurred in the Skelton and Brotton District, an attack rate of (for the three years, *not annually*) 63 per 1000 of the population, and 195 in the Guisbro' District, an attack rate of 34 per 1000. In the Kirkleatham District the attack rate during the same years was 4, in the Loftus 16, and in the Redcar 6 per 1000. Thus in the Guisbro' and the Skelton and Brotton Districts so large a number of persons had been attacked that the number of those remaining susceptible to the disease was considerably reduced. The result of this is, of course, that when the disease is re-introduced into those districts, it cannot spread to any extent : whereas in the districts where there still remains a large proportion of susceptible persons, the disease will, other things being equal, tend to spread. In this way, then, the disease declines in one district whilst it increases in another. In a rural district where the villages are scattered, the disease may in the same way decline in one part of the district and increase in another. The less rapid spread of the disease in one district or part of a district than in another, is due to the fact that one or more factors in the spread of the disease is absent, or if not absent, is modified by other conditions. One of the chief factors is inter-communication between members of infected and of healthy families. In villages consisting of rows of cottages occupied by persons employed in the same class of work, the inhabitants will have much in common, more so than in places

where the community is of mixed character: hence inter-communication between families in the former is much greater than in the latter. Thus it is that infectious disease spreads more rapidly and to a greater extent in one place than in another.

Kirkleatham was the only district in which cases of scarlet fever were removed for isolation. The fact that, notwithstanding this, the number of cases was nearly three times as many as in the previous year requires explanation.

For several years the number of cases in this district has been small: in Warrenby the disease has been practically absent for several years. There is thus a large number of susceptible persons in the district. These, when exposed to infection outside the district more readily fall a prey to it. Again, the district is particularly open to the importation of infectious disease. Being largely a residential town, a large number of persons travel to and from the adjoining centres of business daily where (and in travelling also) they may come in contact with infected persons. Though many may not, because of previous attack or because of the degree of insusceptibility due to age, contract the disease, they may carry the infection in their clothing to their families. Recently on making enquiries into a case in Coatham, it was ascertained that the father of the infected child whose work lay in an adjoining town frequently travelled with the father of an infected family (living in another district). The conveyance of infective matter from child to child through the fathers, was the only way in which the case could be accounted for. Infection is also imported into the district by families who visit it as a health resort, and there is no doubt by the excursionists also, though of course in the latter the conditions are such as to prevent its being traced. Another source of infection from without is the attendance of children at schools in neighbouring large towns to which they travel daily. In a few instances the refusal of parents to allow their children to be removed for isolation helped to spread the fever. A somewhat sudden though limited outburst occurred in Warrenby, and as at that time there were several cases in the sanatorium, the limited accommodation prevented the whole of the cases being isolated. This outburst led me to make enquiries as to the probability of its resulting from the attendance at school of children in an infective condition. An inspection of the school register showed that several children had been ailing for a few days from a week to a fortnight previously. On questioning these children I found the symptoms in some were suspicious of scarlet fever; these I requested to go home, steps being taken to have them kept under the observation of their medical attendant. A sister of one having developed scarlet fever a few days afterwards, she and the suspected child were removed to the sanatorium.

It will be noted that a combination of circumstances prevented the full benefit being derived from isolation, but that some benefit did result is shown by the facts that in seven of the ten houses in Warrenby from which cases were removed no second case occurred, and that although from the other three houses two each were removed, in two of these both patients were taken to the sanatorium at the same time: and in the third the date of attack of the second case was such as to show that infection had been contracted before the first case was removed. I have instanced Warrenby, as apart from the rest of the Kirkleatham District, because it is in this portion that the child population is the largest (proportionally), and that the principal factors in the spread of the fever prevail to the greatest extent.

In the Redcar District the occurrence of several cases within a short period, and the fact that all the patients with one exception attended the same school, led me to examine some of the children at this school. There I found a child who had been ailing, the symptoms being those of scarlet fever. The child was sent home with the result that the slight outbreak declined.

The falling off in the number of cases notified during the second half of the year was very great, four-fifths of the whole being reported in the first half. This decline prevailed in all the districts. As the statistics of scarlet fever show that the time of its greatest prevalence is autumn, it is supposed that seasonal influence affects the spread of the disease. Its decline in the second half of the year then cannot therefore, if this supposition be correct, be due to seasonal influence. The decline in the Skelton and Brotton, and in the Guisbro' Districts, arises from its greater prevalence in those places in previous years, whereby the number of susceptible persons has been considerably reduced. It naturally follows that the reduction in any one district lessens the chances of its importation into other districts.

That the disease was of a mild type is shown by the low mortality, compared with the attack rate, only one death resulting. A death certified to arise from diphtheria and scarlet fever is entered as diphtheria and not as scarlet fever, as another member of the same family had recently died from diphtheria.

### Diphtheria.

Of this disease eighteen cases were reported compared with twenty-three in 1895, viz:— one in each of the Guisborough Rural, the Guisborough Urban, the Kirkleatham, and the Saltburn districts, two in the Redcar, and eleven in the Skelton and Brotton; five had a fatal termination. The single case in the Guisborough Rural District occurred in a child who was on a visit to relatives, and at such time after its arrival as to indicate the disease had been contracted before arrival. The sources of infection in the single cases in the Guisborough Urban and Kirkleatham districts could not be traced. The case in Saltburn occurred in a child whose illness commenced a week after its arrival home from a short visit to friends at a distance: it is therefore more than probable the disease was contracted out of the district. The two in Redcar occurred in a family who had recently come to reside there. These also commenced at such a time after the arrival of the family as to render it probable the infection had been imported from outside. Of the eleven in the Skelton and Brotton district, one occurred in each of five houses, and two in each of three houses; 8 were reported during the first half of the year.

### Membranous Croup.

Eight cases of this were notified of which seven were fatal. During the years 1892 to 1896 inclusive 25 cases were reported 17 of which ended fatally. It frequently occurs that the receipt of the notification is followed in a few hours by notice of the death of the patient. It is a remarkable fact that in not a single instance has a second case of Membranous Croup occurred in any house during the last four years (I have not traced the entries further back than this). Nor, except in one instance, was the disease followed or preceded by diphtheria or any other infectious disease. In this one instance the case of croup was followed by one of diphtheria eight months afterwards.

### Enteric Fever.

The number of cases (33) of enteric fever reported was less by 29 than in the previous year; of the 33, six occurred in the Guisborough Urban District, one in the Kirkleatham, eleven in the Loftus, six in the Redcar, two in the Saltburn, and seven in the Skelton and Brotton. Of those in the GUISBOROUGH district, four were in one house, all the patients being children, the oldest (12 years of age) being the first attacked. The symptoms were so obscure that only when the subsequent cases, which were of a mild type, occurred, was the medical attendant in a position to notify the case as being enteric fever. The child first attacked went to a house in another part of the town daily. The sewer draining the street in which the house is situate was shortly before the commencement of her illness relaid. On being opened up it was found to contain a large deposit. As a case of the same fever occurred in this street the previous year, it is probable that the deposit contained the specific poison of the disease, and that the disturbance of the deposit resulted in the infection of the child. The other two cases in Guisborough (one in a woman 70 years of age), I was not able to trace.

The single case in the KIRKLEATHAM district was imported, the patient's illness beginning a fortnight after her return home from visiting friends at several places, the last of which was Northallerton.

Of the eleven cases in the LOFTUS district, two were in Loftus proper, one in Carlinhow, and nine in Skinningrove. Of the two in Loftus, one was contracted from a previous case in the same house reported in December, 1895. The illness of one of the patients in Skinningrove began at such a time after her return from a visit to an outside district as to lead me to believe she had received infection during such visit. The facts connected with two others in the same place (both in one house) showed it to be probable that the infection had been imported, the illness of the first patient (both were children) commencing about a fortnight after the arrival of a relative from a town where the disease was epidemic and from a house where a fatal case had occurred. The history of the remaining cases in Skinningrove (except one, the source of which could not be traced) and of one in Loftus are so instructive as to render it desirable that the facts should be more minutely stated. On August 13th, 1893, a case in Zetland Row, Skinningrove, was notified, followed by two others on September 7th, and by a fourth on October 15th (all in the same house). The channel of infection in the first case was not traced, the succeeding cases were no doubt contracted directly or indirectly from the first. The cottage in which the infected family lived is one of a long row of the same type, all having the same water supply, the same system

of draining, and the same closet system. On April 9th, 1894, a fifth case in the house was reported and on the 19th of the same month a sixth case. Two of the patients died. So soon as it could be done the family were removed into a house in an adjoining row (No. 147, Grove Hill) in order that the infected house should be thoroughly disinfected and cleansed. This family during or after removal sold a straw mattress to the occupier of the next cottage (No. 148). At the end of July, 1895, a case in the family to whom the mattress had been sold was reported, followed by a second on December 1st, a third on January 18th, 1895, and, a fourth January 22nd. In October, 1896, a person lodging with the family first named, that is the family who were removed to 147 Grove Hill, was attacked by the fever. On December 24th, a case at No. 148 was notified, this being the house into which the mattress had been sold. The family who purchased the mattress was not residing in the house when this last case occurred, they having left the district some time before, the house remaining unoccupied for some time after their departure. It is certainly remarkable that in not one of the cottages forming the two long rows, Zetland Row and Grove Hill, except the three in which the above sequence of cases took place did a single case of the disease occur during the four years 1893, '94, '95, and '96. The case in Loftus had a similar history, it occurring in the same house as one reported 18 months before, but not in the same family as then occupied it.

Of the six in the Redcar district, two were imported, one of which gave rise to another in the same house. The source of infection in the remaining three I was not able to trace.

In one of the two cases in SALTBURN the patient's illness began about eight days after her return from a visit to friends at a distance. The second patient went to and from Middlesbro' daily where he was employed. It is probable therefore that in both, the disease was contracted out of the district.

In no instance did a second case follow in any of the seven houses in which cases occurred in the SKELTON and BROTTON district. The facts connected with one case pointed to the infective medium being the highly offensive night soil brought into the district from Middlesbro' for manurial purposes.

### Measles.

Measles affected all the districts to a greater or less extent, rapidly becoming epidemic in those where it had been absent, or nearly so, for several years. In two instances the schools were closed, viz.:—at Saltburn and Skinningrove, on my recommendation, early information enabling me to have this done before the disease had spread to any extent. The Sunday Schools at these places were also closed at my request. To what extent this closure influenced the spread of the disease I am unable in the absence of statistics (measles not being notifiable) to say. The prevention of its spread is beset by difficulties under any circumstances but especially so amongst those who look upon it as a trivial ailment, and also in those districts where by its absence for some years there is a large number of susceptible children. That it is not so trivial as some imagine is shown by the fact that during the years 1891 to 1896 inclusive, 38 deaths resulted from it compared with 32 from scarlet fever. The conditions which render measles difficult to cope with are its high degree of infectiveness and the early stage at which this begins, shown by the extreme rapidity of its spread. In from two to three months it will in some districts run its course dying out for lack of fresh material, whereas before scarlet fever does the same, two or three years may elapse.

By some it is contended that no good obtains by the closing of schools, these holding that infection is just as sure to spread by the mixing together of the affected and healthy at play, &c. But the conditions are not the same. It is much more likely to spread when the infected and healthy are sitting together for hours in a confined space and in a comparatively confined atmosphere than in the open. It must not be forgotten too that when measles prevails in any place the schools must, through the attendance of infected children or children from infected houses, become infected, and so long as the school remains open children are by law compelled to attend.

The inclusion of the disease in the list of those notifiable is a question upon which a considerable difference of opinion exists. If its notification is to be of any value it must be complete. At present not one per cent. of the cases reported are notified by the householder, and as, in some districts, a very large proportion of the cases are not seen by any practitioner it would be necessary to rigidly enforce the law as regards the notification by the householder. The value of

notification would be almost nil without the means of isolation. Granted that in some houses isolation could be and would be carried out, the proportion of these in many districts is very small. Notification no doubt would enable disinfection to be carried out, but without the provision of proper apparatus for the purpose, such disinfection would only be partial. Moreover in many instances it is necessary to disinfect every room in a house, and this cannot be done where no means exist of housing the family during the process. Mutual benefit would result if School Authorities would forward the addresses of known or suspected cases to the Sanitary Authorities. Such information might under favorable conditions prevent an epidemic.

### Diarrhoea.

The remarkably small number of deaths (4) from diarrhoea during the year is worthy of note. In 1895 there were 18, in 1894—2, and in 1893—38. This great variation indicates that diarrhoea is directly or indirectly due to climatic conditions.

### Statistics.

The population of the Union is estimated to have increased by 1050. The natural increase by excess of births over deaths was 656. The increase 1050 is apportioned as follows:—Guisborough Rural District from 7000 to 7050, Guisborough Urban from 5550 to 5700, Kirkleatham from 4500 to 4550, Loftus from 6150 to 6600, Redcar 3200 to 3250 (Saltburn no increase), Skelton and Brotton from 11,600 to 12,000.

In every district there was an increase in the number of births. The total number registered was 1276 (682 males, 594 females), compared with 1173 in 1895. This is equal to a birth rate of 30·63 per 1000 of the population. The deaths numbered 620 (338 males, 282 females), giving a death rate of 14·88. Particulars of the birth rate, death rate, &c., in each of the districts are given in table B.

The deaths from zymotic diseases—diarrhoea included—numbered 48 (55 in 1895), which is at the rate of 1·17 per 1000 of the population. The zymotic death rate in each of the districts is given in table B. In table C will be found the number of deaths from each of the zymotic diseases in the several districts.

### Inspections.

As in past years systematic inspections have been made by me in each of the districts, sometimes in company with the respective Inspectors, and frequently from house to house. Particulars of the various defects found to exist were noted and laid before the Councils either in my own monthly reports or by entry in the Inspector's books. A large number of special visits were made, every case of diphtheria, membranous croup, enteric fever, and nearly every case of scarlet fever being enquired into by myself.

Table D contains particulars, supplied by the Inspectors, of the number and nature of nuisances abated, &c., during the year. In addition, a number of matters have had attention as the result of direct communication between myself or the Inspectors, and the owners or agents of property.

### Isolation Hospital.

No further step has been taken for the provision of isolation accommodation in those districts which are without it. A communication upon the subject was received from the Local Government Board by the Guisborough Rural District Council to which the following reply was forwarded:—“ . . . . this Council have already tried to combine with the Urban Districts “ but that nothing has come of this and that this Council is still of opinion that the County “ Council should take the subject in hand.”

### Housing of the Working classes Act.

In only one instance was it found necessary to take proceedings under this Act. In this steps are being taken at the present time to enforce the law.

### Overcrowding.

Several instances of this came under observation. In three, it was necessary to take legal proceedings; in each an order to abate the nuisance was made by the magistrates.

**TABLE A.**  
Number of Cases of Infectious Diseases notified during the  
year in each of the districts.

	Gisbro' Rural.	Gisbro' Urban.	Kirkleatham Urban.	Loftus Urban.	Redcar Urban.	Saltbn. Urban.	Skelton and Brotton Urban.	TOTALS.
Scarlet Fever ... ... ...	62	8	48	44	19	0	32	213
Diphtheria ... ... ...	1	1	1	0	2	1	11	18
Membranous Croup ... ... ...	1	0	0	0	3	0	4	8
Enteric Fever ... ... ...	0	6	1	11	6	2	7	33
Continued Fever ... ... ...	0	0	0	0	0	0	0	0
Puerperal Fever ... ... ...	0	0	0	0	0	0	0	0
Erysipelas ... ... ...	3	2	7	3	0	0	16	31
TOTALS ... ...	67	17	57	58	30	3	70	303

**TABLE D.**  
Number and Nature of Nuisances abated, &c.

	Guisboro' Rural.	Guisboro' Urban.	Kirkleatham Urban.	Loftus Urban.	Redcar Urban.	Saltburn Urban.	Skelton and Brotton Urban.
House yards re-laid or repaired.....	21	16	23	16	9	17	86
Drains or Drain Traps ditto.....	19	9	48	7	12	4	17
Pails and W.C.'s substituted for ordinary closets)	19	6	2	0	0	5	6
Closets, Ashpits, &c., repaired.....	8	5	0	7	10	42	34
Other defects remedied and nuisances abated...)	5	12	44	23	11	10	51
Rooms disinfected.....	60	19	56	51	28	3	59
TOTALS.....	132	67	173	104	70	81	253

**TABLE B.**

Birth and Death Rates, and the Mortality at different age periods in the several districts.

	Guisbro' Rural.	Guisbro' Urban.	Kirk-leatham Urban.	Loftus Urban.	Redcar Urban.	Saltburn Urban.	Skelton & Brotton Urban.	Totals & Means.	
Population ... ...	7050	5700	4550	6600	3250	2500	12,000	41,650	
Number of Births...	M. 136 F. 103 <hr/> 239	M. 98 F. 87 <hr/> 185	M. 62 F. 59 <hr/> 121	M. 113 F. 97 <hr/> 210	M. 39 F. 32 <hr/> 71	M. 30 F. 18 <hr/> 48	M. 204 F. 198 <hr/> 402	M. 682 F. 594 <hr/> 1276	
Birth Rate ... ...	33.90	32.45	26.65	31.81	21.84	19.20	33.50	30.63	
Number of Deaths...	M. 61 F. 53 <hr/> 114	M. 47 F. 42 <hr/> 89	M. 35 F. 29 <hr/> 64	M. 51 F. 44 <hr/> 95	M. 29 F. 25 <hr/> 54	M. 10 F. 10 <hr/> 20	M. 105 F. 79 <hr/> 184	M. 338 F. 282 <hr/> 620	
Death Rate ... ...	16.17	15.61	14.06	14.39	16.61	8.00	15.33	14.88	
Zymotic Death Rate (including Diarrhoea)	0.56	0.87	0.65	1.51	2.15	0.80	1.41	1.17	
Proportion of Deaths in children under 1 year of age to each 100 births.	16.31	10.81	10.74	14.28	19.71	8.33	12.68	13.40	
Proportion of Deaths in children under 5 years of age to each 100 deaths.	44.73	31.46	26.56	50.52	42.59	30.00	41.30	40.16	
Mortality at subjoined age periods	Under 1 year of age	39	20	13	30	14	4	51	171
	Over 1 & under 5	12	8	4	18	9	2	25	78
	Over 5 & under 15	2	3	4	6	4	1	8	28
	Over 15 & under 25	6	5	3	8	3	2	11	38
	Over 25 & under 65	22	21	24	13	11	6	55	152
	65 and over	33	32	16	20	13	5	34	153

TABLE C.

To the Chairman and Members  
OF THE  
Guisborough Rural District Council.

---

GENTLEMEN,

The number (67) of cases of infectious disease reported during the year was slightly in excess of that (61) of the previous year. Sixty-two of the cases were scarlet fever. Only one each of diphtheria and membranous croup were reported; three of erysipelas. The district was entirely free from enteric fever. Of the 62 cases of scarlet fever 54 occurred in the Wilton parish, viz.:—30 in 18 houses at Lazenby, 23 in 12 houses at Lackenby, and two in isolated houses. Of the remaining six cases, two occurred at Marske, two at Boulby, and two at Upsall. The single case of diphtheria there was reason to believe was imported.

The number of births registered was 239 (136 males, 103 females)—16 more than in 1895; birth rate 33·90. The deaths numbered 114 (61 males, 53 females)—15 less than in the previous year; death rate 16·17. In the Marske and Upleatham registration districts the birth and death rates were respectively 33·29 and 17·10. In the area comprised in the Danby, Guisborough, and Loftus registration districts the birth rate was 34·89, the death rate 14·67. The deaths from infectious disease were—scarlet fever 1, diphtheria 1, membranous croup 1, whooping cough 1—equal to a rate of 0·56 per 1000 of the population. The proportion of deaths in children under 5 years of age to each 100 deaths was higher than in 1895, and so was the proportion of deaths in infants under one year to each 100 births. The various rates are given in Table B.

Inspections of the various parts of the district have been made from time to time and reported upon to the Council at its monthly meetings. Table D shows the number and nature of the various insanitary conditions remedied during the year.

The Council has for some time past had under consideration the desirability of increasing and extending the water supply at Newton. Several difficulties in the matter have arisen; it is hoped that these will shortly be overcome.

A proper supply of water for the occupiers of the cottages at Cowber is needed: the Council is taking steps to have this provided.

In Marske several inefficiently trapped openings to carry off rain water from the streets into the sewer have been replaced by trapped gullies.

Some cases of overcrowding at Commandale were reported by me: the necessary steps to abate the nuisances thus caused were ordered to be taken.

I am, gentlemen,

Saltburn-by-the-Sea,

Feb. 16th, 1897.

Yours obediently,

W. W. STAINTHORPE.



